



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

8033-138

Date of Issuance:

3/5/21

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Picarbutrazox 20 WG

Name and Address of Registrant (include ZIP Code):

Nippon Soda Co., Ltd.  
c/o Nisso America Inc.  
88 Pine Street, 14th Floor  
New York, NY 10005

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

*Rachel C. Holloman*  
Rachel C. Holloman, Chief  
Fungicide and Herbicide Branch,  
Registration Division (7505P)

Date:

3/5/21

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 8033-138.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 01/25/2021

If you have any questions, please contact Aswathy Balan by phone at 703-347-0510, or via email at [balan.aswathy@epa.gov](mailto:balan.aswathy@epa.gov).

**ACCEPTED**

03/05/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 8033-138

Picarbutrazox	Group	<b>U17</b>	Fungicide
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# Picarbutrazox 20 WG

Water-Dispersable Granule Fungicide  
Intended for Use by Professional Applicators  
Not for Homeowner Use

<b>Active Ingredient:</b>	<b>% BY WT.</b>
Picarbutrazox.....	20.28%
<b>Other Ingredients:</b> .....	<u>79.72%</u>
<b>TOTAL:</b> .....	100%

EPA Reg. No. 8033-xxx

EPA Est. No. \_\_\_\_\_

## KEEP OUT OF REACH OF CHILDREN CAUTION

**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label find someone to explain it to you in detail.)**

For Medical and Transportation Emergencies ONLY call CHEMTREC at 1-800-424-9300

<b>FIRST AID</b>	
<b>If Swallowed:</b>	<ul style="list-style-type: none"> <li>▪ Call a poison control center or doctor immediately for treatment advice.</li> <li>▪ Have person sip a glass of water if able to swallow.</li> <li>▪ Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>▪ Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on Skin or Clothing:</b>	<ul style="list-style-type: none"> <li>▪ Take off contaminated clothing.</li> <li>▪ Rinse skin immediately with plenty of water for 15 – 20 minutes.</li> <li>▪ Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in Eyes:</b>	<ul style="list-style-type: none"> <li>▪ Hold eye open and rinse slowly and gently with water for 15 – 20 minutes.</li> <li>▪ Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>▪ Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If Inhaled:</b>	<ul style="list-style-type: none"> <li>▪ Move person to fresh air.</li> <li>▪ If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>▪ Call a poison control center or doctor for treatment advice.</li> </ul>
<p>For MEDICAL EMERGENCIES call CHEMTREC at 1-800-424-9300.</p> <p>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</p>	
<p><b>NOTE TO PHYSICIAN:</b> There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred.</p>	

Net Contents: \_\_\_\_\_

Batch No. \_\_\_\_\_

Nippon Soda Co., Ltd.  
c/o Nisso America Inc.  
379 Thornall Street, 5<sup>th</sup> floor  
Edison, NJ 08837

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS and DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Mixers, loaders, applicators, and other handlers must wear long-sleeved shirts, long pants, socks and shoes, and waterproof gloves.

**USER SAFETY REQUIREMENTS**

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROLS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations**

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

For terrestrial uses: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several months or more after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. Read entire label before using this product.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

#### Early Entry PPE:

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, shoes plus socks and chemical resistant gloves.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep unprotected persons out of treated areas until sprays have dried.

### COMPATIBILITY

Picarbutrazox 20 WG, when diluted with an equal volume of water, is physically compatible with a wide range of commonly used spray products, but the full range of compatibilities under local conditions is not known. Therefore, it is essential that before using Picarbutrazox 20 WG in any tank mixture the compatibility of the mixture be established. Add a small amount of this product to an equal volume of water in a small container and then add the other pesticide or spray product and mix thoroughly. **DO NOT USE MIXTURES THAT CURDLE, PRECIPITATE, OR GREASE. FOR BEST RESULTS, SPRAY MIXTURES MUST BE USED IMMEDIATELY AFTER MIXING WITH ADEQUATE AGITATION.**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### DIRECTIONS FOR AERIAL OR GROUND SPRAY APPLICATION

PICARBUTRAZOX 20 WG is a 20% wettable granular for the control of *Pythium* diseases (foliar blight, damping-off, root dysfunction) in turf. Thorough spray coverage is essential for optimal performance. Use adequate spray volume of 1 to 4 gallons per 1000 square feet to ensure complete coverage of foliage.

Users must read, understand, and follow the label use rates and restrictions. For application, determine the number of acres to be treated, the specified label use rate, and the spray volume per acre. Prepare only the amount of spray solution that is necessary to spray the measured acres. Calibrate spray equipment prior to use.

Ground Application: For optimal disease control, use thorough spray coverage. Good spray coverage is a function of spray pressure, spray volume per acre, nozzle type and spacing and application equipment speed. Calibrate spray equipment prior to use. Apply in a minimum of 1 gallon per 1,000 square feet.

Aerial Application: Apply in a minimum of 1 gallon per acre. **DO NOT** apply under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.

## SPRAY DRIFT MANAGEMENT

### Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators must select nozzles and pressure that deliver medium droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572)
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Ground Applications

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators must select nozzles and pressure that deliver medium droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572)
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Spray Drift Advisories

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE  
An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.  
Controlling Droplet Size - Ground Boom
  - Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
  - Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
  - Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.Controlling Droplet Size - Aircraft
  - Adjust Nozzles - Follow nozzle manufacturers specifications for setting up nozzles.  
Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT - Ground Boom  
Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.
- RELEASE HEIGHT - Aircraft  
Higher release heights increase the potential for spray drift. When applying aurally to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.
- SHIELDED SPRAYERS  
Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- TEMPERATURE AND HUMIDITY  
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

- **TEMPERATURE INVERSIONS**  
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.
- **WIND**  
Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**  
Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **DIRECTIONS FOR CHEMIGATION**

Apply this product only through overhead sprinkler irrigation systems including center pivot, lateral move, side (wheel) roll, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The overhead sprinkler chemigation system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed for materials that are compatible with pesticides and capable of being fitted with a system interlock.

**DO NOT** connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

**DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

### Application Instructions

Observe the requirements in the System Requirements section above. Apply Picarbutrazox 20 WG only through systems containing anti-siphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to insure simultaneous shut-off. Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. Application of more than specified quantities of irrigation water per acre may result in decreased product performance. **DO NOT** apply when wind speed favors drift, when system connections or fittings leak, when nozzles provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area. Use of end guns which deliver uneven distribution of water is not advised. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control may result. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. Picarbutrazox 20 WG may be applied in conjunction with chemically-neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and must be avoided.

### Spray Preparation

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water. Prepare a solution of Picarbutrazox 20 WG in a mix tank. Fill the tank with  $\frac{1}{2}$  or  $\frac{3}{4}$  the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of Picarbutrazox 20 WG and then the remaining volume of water.

### Sprinkler Irrigation

Observe all System Requirements and Application Instructions above. Set sprinkler system to deliver a maximum of 0.2 inch of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the solution of Picarbutrazox 20 WG into the irrigation water line so as to deliver the desired rate per acre. The solution of Picarbutrazox 20 WG must be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Retention of Picarbutrazox 20 WG on foliage is necessary for optimum activity. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. Where sprinkler-distributed patterns do not overlap sufficiently, unacceptable disease control may result.

## **MIXING INSTRUCTIONS**

### **Mixing and Application Instructions for Picarbutrazox 20 WG**

Picarbutrazox 20 WG is a granular formulation that readily disperses in water to form a spray, which may be applied by ground or air.

1. Plan ahead. Prepare only enough spray mixture as can be applied on the day of mixing.
2. Fill tank  $\frac{1}{4}$  -  $\frac{1}{2}$  full with the required amount of total spray volume of water.
3. Begin agitation and add product.
4. Continue to fill tank while directing a stream of water onto any floating product.
5. Allow mixing in tank for 2 minutes after filling or until thoroughly mixed before applying.
6. Maintain continuous agitation during mixing and application to assure uniform suspension. If mixture sits without agitation for extended periods, agitate the mixture for at least 10 minutes before use.
7. Equip spray system with a 50-mesh inline filter, which will protect nozzles that are typically used. Nozzles may also be equipped with 50-mesh nozzle filters or 25 to 50 mesh (equivalent) slotted nozzle filters.
8. Picarbutrazox 20 WG is unstable in water pH below 4 and above 9. If necessary, buffer water to obtain optimum pH range.

### **Special Instructions for Tank Mixing Picarbutrazox 20 WG**

When tank mixing Picarbutrazox 20 WG with other products, introduce the products into the tank in the following order: (1) water soluble packets (2) wettable powders (3) water dispersible granules (such as Picarbutrazox 20 WG) (4) flowable liquids (5) emulsifiable concentrates and (6) adjuvants. Always allow each product to fully disperse before adding the next product.

The use of adjuvants or additives may enhance the fungicide performance of Picarbutrazox 20 WG under some conditions. Local environmental conditions may affect turf tolerance. Since all possible tank mix combinations have not been examined, test the combination on a small section of the turf to be sprayed to ensure that injury will not occur as a result of application. Consult a Nisso company representative, local turf authorities, or local extension service for more information on adjuvants and additives.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

## **APPLICATION INSTRUCTIONS**

Apply a minimum finished spray volume of 1 gallons per acre by air or 1 to 4 gallons per 1000 square feet by ground unless otherwise indicated in specific directions for use. For best results, it is important to obtain thorough and uniform spray coverage of the plant. For aerial and ground application, select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572.

To clean the sprayer after use, drain and flush with water. Use rinsate on turf according to label instructions or dispose of in an approved manner (See STORAGE AND DISPOSAL).

## **INTEGRATED PEST MANAGEMENT (IPM) USE OF THIS PRODUCT**

### **RESISTANCE MANAGEMENT**

For resistance management, PICARBUTRAZOX 20 WG contains a Group U17 fungicide. Any fungal population may contain individuals naturally resistant to PICARBUTRAZOX 20 WG and other Group U17 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance management strategies must be followed.

To delay fungicide resistance, consider:

- 1) Avoiding the consecutive use of PICARBUTRAZOX 20 WG or other Group U17 fungicides that have a similar target site of action on the same pathogens.
- 2) Using tank-mixtures or premixes with fungicides from different target site of action Groups as long as the involved products are all registered for the same use and are both effective at the tank mix or premix rate on the pathogen(s) of concern.
- 3) Basing fungicide use on a comprehensive IPM program.
- 4) Monitoring treated fungal populations for loss of field efficacy.
- 5) Contacting your local extension specialist, certified crop advisor, and/or the manufacturer for fungicide resistance management and/or IPM information for specific crops and resistant pathogens.

**TURF – GROUND APPLICATIONS**

SITE	PEST	DOSAGE PER 1,000 square feet		APPLICATION INSTRUCTIONS
		POUNDS ACTIVE INGREDIENT	OUNCES of Picarbutrazox 20 WG	
Turf; (including golf courses, sports fields, residential and commercial lawns, sod farms, turf seed farms, cemeteries, recreational areas, and parks)	Pythium foliar blight	0.0051 – 0.0076 lbs. ai	0.4 – 0.6 ounces	Apply as a preventative treatment during periods of high temperature and humidity favorable to the development of Pythium blight. During periods of prolonged favorable conditions for disease development, reapply on a 14 to 21-day interval. Use the lower rate for the shorter interval and the higher rate for the longer interval within the application rate range.  Apply in 1 to 4 gallons of water per 1,000 sq. ft. with ground equipment.
	Pythium damping-off	0.0051 – 0.0076 lbs. ai	0.4 – 0.6 ounces	For newly seeded areas, apply immediately after seeding.  Apply in 1 to 4 gallons of water per 1,000 sq. ft. with ground equipment.  Irrigate after application.
	Pythium root dysfunction	0.0051 – 0.0076 lbs. ai	0.4 – 0.6 ounces	Apply as a preventative treatment on a 21 day schedule during the fall and spring seasons when average daily soil temperatures range between 50°F and 75°F. Apply in 1 to 4 gallons of water per 1,000 sq. ft. with ground equipment.  Immediately follow application with 1/8 inch of irrigation.

**RESTRICTIONS:**

- The maximum amount of Picarbutrazox 20 WG that can be applied annually is 2.4 ounces per 1,000 square feet of turfgrass.
- The maximum amount of picarbutrazox active ingredient that can be applied annually is 0.03 lb. per 1,000 square feet of turfgrass.
- At the lower rate of 0.4 oz. per application, a maximum number of 6 applications can be made per year.
- At the higher rate of 0.6 oz. per application, a maximum number of 4 applications can be made per year.

**TURF: SOD FARMS AND TURF SEED FARMS - AERIAL APPLICATION**

SITE	PEST	DOSAGE PER ACRE		APPLICATION INSTRUCTIONS
		POUNDS ACTIVE INGREDIENT	OUNCES of Picarbutrazox 20 WG	
Turf: sod farms, turf seed farms	Pythium foliar blight	0.221 – 0.331 lbs. ai	17.4 – 26.1 ounces	Apply in 1 to 4 gallons of water per acre aerially.
	Pythium damping-off	0.221 – 0.331 lbs. ai	17.4 – 26.1 ounces	Apply in 1 to 4 gallons of water per acre aerially.  Irrigate after application.
	Pythium root dysfunction	0.221 – 0.331 lbs. ai	17.4 – 26.1 ounces	Apply in 1 to 4 gallons of water per acre aerially.  Immediately follow application with 1/8 inch of irrigation.

**RESTRICTIONS**

- The maximum amount of Picarbutrazox 20 WG that can be applied annually is 104.4 ounces per acre of turfgrass.
- The maximum amount of picarbutrazox active ingredient that can be applied annually is 1.32 lbs. per acre of turfgrass.
- At the lower rate of 17.4 ounces per application, a maximum number of 6 applications can be made per year.
- At the higher rate of 26.1 ounces per application, a maximum of 4 applications can be made per year.
- **DO NOT** apply by air in turf uses other than sod farms and turf seed farms.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store unused product in original container only, out of reach of children and animals.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

**CONTAINER DISPOSAL:**

**Non-refillable container (5 gallons or less).** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents in application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

**Non-refillable container (greater than five gallons).** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

## Conditions of Sale and Limitation of Warranty and Liability

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product, which are beyond the control of Nippon Soda Co., Ltd. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Nippon Soda Co., Ltd. and Seller harmless for any claims relating to such factors.

To the extent allowed by applicable laws, Nippon Soda Co., Ltd. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Nippon Soda Co., Ltd., and Buyer and User assume the risk of any such use. TO THE EXTENT ALLOWABLE BY APPLICABLE LAW, NIPPON SODA CO., LTD. MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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